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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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WEINGARTEN, SCHURGIN, GAGNEBIN & LEOVICI LLP TEN POST OFFICE SQUARE BOSTON, MA 02109			QIN, JIANCHUN	
			ART UNIT	PAPER NUMBER
			2837	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/649,369

Applicant(s)

FISHMAN, LAWRENCE R.

Examiner

Jianchun Qin

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-8, 10-14, 17-34, 36, 37 and 39-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-8, 10-14, 17-34, 36-37 and 39-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 7, 8, 10, 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wechter (U.S. Pat. No. 4351217) in view of Soumi et al. (U.S. Pat. No. 4937606) and Hudak (U.S. Pat. No. 5731535).

With respect to claim 1:

Wechter teaches a preamplifier assembly for a musical instrument, comprising: a housing (#51) including a face portion (#46) and an integral battery holder (#52), the battery holder being configured to hold a battery (col. 6, lines 41-43), the housing being connectable to a surface of the musical instrument while allowing unobstructed user access to the face portion of the housing (Figs. 4-6); a printed circuit board subassembly disposed within the housing, the printed circuit board subassembly including at least one printed circuit board (col. 6, lines 56-65); preamplifier circuitry disposed on the at least one printed circuit board, the preamplifier circuitry being operative to receive an input signal from at least one input device (#64), battery being operative to supply power to the preamplifier circuitry (col. 6, lines 56-65); and an

integral output connector operatively connected to the preamplifier circuitry for providing the output signal, the output connector being mounted on the face portion of the housing (col. 6, lines 50-65); wherein the integral output connector comprises an output jack (#56), and wherein the face portion of the housing is configured to reinforce the output jack (Fig. 5).

Wechter does not mention expressly: wherein the face portion includes a bezel and at least one cover retaining element, the bezel having at least one slot opening formed therein, one end of the slot opening defining a pivot point; a cover for securely enclosing the battery within the battery holder, the cover being slidably and pivotally mounted on the face portion of the housing, wherein the cover has a first edge, at least one pivot pin formed thereon adjacent the first edge, and at least one cover locking surface, wherein the slot opening is configured to receive the pivot pin to facilitate slidable and pivotable movement of the cover between a closed position and an opened position, the closed position enclosing the battery within the battery holder, the opened position allowing to the user to access the battery within the battery holder, wherein the cover retaining element is configured to engage the cover locking surface when the cover is in the closed position, and wherein the cover is configured to allow the user to move it from the closed position to the opened position by sliding the cover to disengage the cover locking surface from the cover retaining element and to move the pivot pin within the slot to the pivot point of the first edge of the cover adjacent the pivot pin being a leading edge during the sliding movement, and by pivoting the cover about the pivot point to the opened, thereby allowing the user to open the cover in

substantially one continuous movement; said output connector being directly attached to the at least one printed circuit board, and being mounted on the face portion of the housing to secure the printed circuit board assembly within the housing.

Soumi et al. teaches a batteryholder cover (Figs. 2-5; #22), including: a face portion (#40) includes a bezel (#42) and at least one cover retaining element (Fig. 5), the bezel having at least one slot opening formed therein (Fig. 5), one end of the slot opening defining a pivot point (Fig. 5; col. 3, lines 33-48); a cover (#22) for securely enclosing the battery within the battery holder, the cover being slidably and pivotally mounted on the face portion of the housing (col. 3, lines 7-13), wherein the cover has a first edge (Figs. 2 and 5), at least one pivot pin (#24) formed thereon adjacent the first edge, and at least one cover locking surface (col. 3, lines 44-48), wherein the slot opening is configured to receive the pivot pin to facilitate slidable and pivotable movement of the cover between a closed position and an opened position (col. 3, lines 33-48), the closed position enclosing the battery within the battery holder, the opened position allowing to the user to access the battery within the battery holder (col. 3, lines 33-48), wherein the cover retaining element is configured to engage the cover locking surface when the cover is in the closed position (col. 3, lines 33-48), and wherein the cover is configured to allow the user to move it from the closed position to the opened position by sliding the cover to disengage the cover locking surface from the cover retaining element and to move the pivot pin within the slot to the pivot point of the first edge of the cover adjacent the pivot pin being a leading edge during the sliding movement, and by pivoting the cover about the pivot point to the opened, thereby

allowing the user to open the cover in substantially one continuous movement (col. 3, lines 33-48).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Soumi et al. into the invention of Wechter in order to provide Wechter's batter holder with a battery cover that is light-weighted, structural simple and easy to operate, and that can be appropriately applied to handheld electronic instrument or device (Soumi et al., cols. 1-2, lines 63-21).

Hudak teaches a preamplifier, including an integrated output connector, said output connector being directly attached to the at least one printed circuit board, and being mounted on the face portion of the housing (i.e., the soundboard) of the preamplifier to secure the printed circuit board assembly within the housing (Figs. 1-3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Wechter as taught by Hudak to rearrange the position of the output connector in order to make the preamplifier assembly construction easy and manufacture effective (Hudak, cols. 3-4, lines 60-2).

With respect to claims 2-5 and 10:

The teaching of Wechter further includes: at least one control mechanism (54) operatively connected to the preamplifier circuitry, the control mechanism being configured to control at least one characteristic of the output signal provided by the preamplifier circuitry via the output connector (col. 6, lines 47-50); the face portion of the housing is configured to allow the user to access the control mechanism (Fig. 5); the signal characteristic controlled by the control mechanism is selected from the group

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consisting of volume and tone (col. 6, lines 47-50); the housing includes an electronics enclosure, the electronics enclosure being configured to house the preamplifier circuitry (col. 6, lines 61-65); the at least one input device is selected from the group consisting of a pre-wired pickup, a pre-wired microphone, a vibration sensitive transducer, a force sensor, an accelerometer, and a pressure sensor (col. 6, lines 56-65).

With respect to claims 7 and 8:

Wechter teaches an improved electronic musical instrument, including: a housing of electronics that includes a mounting flange configured to connect the housing to the surface of the musical instrument (Figs. 2-7, col. 5, lines 13-24, lines 31-36 and col. 6, lines 20-29); the surface of the musical instrument is a planar or contoured surface, and wherein the mounting flange is configured for flexibly and conformably connecting the housing to the planar or contoured surface of the instrument (Figs. 2-4).

With respect to claims 14 and 17:

Wechter further teaches: the musical instrument is selected from the group consisting of an acoustic guitar, a hollow body electric guitar, a semi-hollow body electric guitar, a solid body electric guitar, a ukulele, a mandolin, a violin, a viola, a cello, and a bass violin (Fig. 1); the output jack (col. 6, lines 51-56) is configured to receive an output plug, the preamplifier circuitry including a shorting contact configured to be actuated when the output plug is received by the output jack, thereby allowing power to be supplied to the preamplifier circuitry by the battery (col. 6, lines 30-65).

3. Claims 11-13, 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wechter in view of Soumi et al. and Hudak, as applied to claim 1 above, and further in view of Armstrong (U.S. Pat. No. 4472994).

With respect to claims 11-13, 18 and 19:

Wechter in view of Soumi et al. and Hudak do not mention expressly: the at least one input device includes a first input device and a second input device, the first and second input devices being configured to provide respective input signals to the preamplifier circuitry; at least one control mechanism operatively connected to the preamplifier circuitry for adjustably blending the respective input signals provided by the first and second input devices; the face portion of the housing is configured to allow the user to access the control mechanism; the printed circuit board subassembly comprises first and second printed circuit boards and a printed circuit board spacer, the first and second circuit boards being mechanically connected to each other in a predetermined fixed orientation by the circuit board spacer; the preamplifier circuitry is disposed on at least one of the first and second circuit boards;

Armstrong teaches: a preamplifier circuitry being operative to receive an input signal from at least one input device (col. 4, lines 24-37; col. 5, lines 30-45); at least one input device includes a first input device and a second input device, the first and second input devices being configured to provide respective input signals to the preamplifier circuitry (col. 6, lines 56-65); at least one control mechanism operatively connected to the preamplifier circuitry for adjustably blending the respective input signals provided by the first and second input devices (col. 4, lines 41-47); the face portion of the housing is

configured to allow the user to access the control mechanism (Fig. 1, #66 and #68); a printed circuit board subassembly comprising first and second printed circuit boards and a printed circuit board spacer, the first and second circuit boards being mechanically connected to each other in a predetermined fixed orientation by the circuit board spacer (col. 4, lines 31-47); the preamplifier circuitry is disposed on at least one of the first and second circuit boards (col. 4, lines 31-47).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Armstrong into the combination of Wechter, Soumi et al. and Hudak in order to provide a comprehensive preamplifier for a stringed instrument (Armstrong, Abstract).

With respect to claims 20-22:

The combination of Wechter, Soumi et al. and Hudak does not mention expressly: the output connector is connected to a selected one of the first and second circuit boards; and the face portion of the housing has an opening formed therethrough, wherein the circuit board assembly is configured to engage the housing, and wherein the first and second circuit boards are oriented to allow the user to access the output connector via the opening when the circuit board assembly engages the housing.

Armstrong further teaches: the output connector is connected to a selected one of the first and second circuit boards (col. 4, lines 31-45); and the face portion of the housing has an opening formed therethrough, wherein the circuit board assembly is configured to engage the housing, and wherein the first and second circuit boards are

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oriented to allow the user to access the output connector via the opening when the circuit board assembly engages the housing (Fig. 1, #64, #80 and #81).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Armstrong into the combination of Wechter, Soumi et al. and Hudak in order to provide a comprehensive preamplifier for a stringed instrument (Armstrong, Abstract).

Wechter does not mention: the output connector is directly attached to one of the circuit boards; and the output jack is mounted on the face portion of the housing at the opening formed therethrough.

Hudak teaches a preamplifier, including an integrated output connector, said output connector being directly attached to the at least one printed circuit board, and being mounted on the face portion of the housing (i.e., the soundboard) of the preamplifier to secure the printed circuit board assembly within the housing (Figs. 1-3); and the output connector comprises an output jack (Figs. 1-3, #50), the output jack is mounted on the face portion at the opening formed therethrough.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Wechter as taught by Hudak to rearrange the position of the output connector in order to make the preamplifier assembly construction easy and manufacture effective (Hudak, cols. 3-4, lines 60-2).

4. Claims 23, 31-34, 36, 39, 40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wechter (U.S. Pat. No. 4351217) in view of Armstrong (U.S. Pat. No. 4472994) and Hudak (U.S. Pat. No. 5731535).

With respect to claim 23:

Wechter teaches a preamplifier housing for a musical instrument, the housing being connectable to a surface of the musical instrument, comprising: a face portion (#46) having an opening formed therethrough (Figs. 4-6), the housing (#51) being connectable to the surface of the musical instrument while allowing unobstructed user access to the face portion of the housing (Figs. 4-6); an electronics enclosure (#58) configured to house preamplifier circuitry, the preamplifier circuitry being disposed on at least one printed circuit board (col. 6, lines 56-65), and wherein the face portion of the housing is configured to allow an output jack (#56) to be mounted on the face portion at the opening formed therethrough (Fig. 5), the face portion being configured to provide a structural reinforcement for the output jack (Fig. 5); an integral battery holder (#52) configured to hold a battery therein for powering the preamplifier circuitry (col. 6, lines 41-43), the face portion of the housing being configured to provide access to the battery held within the battery holder (Fig. 3).

Wechter does not mention expressly: the housing being configured to allow the at least one printed circuit board to engage the housing, thereby causing an integral output connector directly attached to the printed circuit board to be in registration with the opening formed through the face portion of the housing, the output connector comprising an output jack; a cover movably mounted on the face portion of the housing, the cover being configured to enclose the battery within the battery holder; and said output jack is mounted on the face portion at the opening formed therethrough to secure the at least one printed circuit board within the housing.

Armstrong teaches an electrical guitar, including a batter holder (#84) contained in a shielded housing (col. 5, lines 30-37), and a cover (#94) for securely enclosing the battery within the battery holder, the cover being movably mounted on the face portion of the housing to allow the user to access the battery within the battery holder (col. 5, lines 46-52).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Wechter to have a cover for the battery holder as taught by Armstrong in order to allow the user to access the battery more easily.

Hudak teaches a preamplifier, including an integrated output connector, said output connector being directly attached to the at least one printed circuit board, and being mounted on the face portion of the housing (i.e., the soundboard) of the preamplifier to secure the printed circuit board assembly within the housing (Figs. 1-3); mounting an output jack 50 having a printed circuit board 48 directly attached thereto to the face portion 40 of a preamplifier housing (i.e., the guitar bowel 14) to secure the printed circuit board within the housing 14.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Wechter's output jack 56, as taught by Hudak, to rearrange the parts to have a printed circuit board directly attached thereto in order to make the preamplifier assembly construction easier and manufacture effective (Hudak, cols. 3-4, lines 60-2).

With respect to claims 31 and 32:

Wechter teaches an improved electronic musical instrument, including: a housing of electronics that includes a mounting flange configured to connect the housing to the surface of the musical instrument (Figs. 2-7, col. 5, lines 13-24, lines 31-36 and col. 6, lines 20-29); the surface of the musical instrument is a planar or contoured surface, and wherein the mounting flange is configured for flexibly and conformably connecting the housing to the planar or contoured surface of the instrument (Figs. 2-4).

With respect to claim 33:

Wechter teaches a method of assembling a preamplifier for a musical instrument, the preamplifier assembly including a housing (#51) having a face portion (#46), the housing being configured to connect to a surface of the musical instrument (Fig. 5) while allowing unobstructed user access to the face portion of the housing, comprising the steps of: operatively connecting an input device (#64) to preamplifier circuitry (#58), the preamplifier circuitry being disposed on at least one printed circuit board of a printed circuit board subassembly (col. 6, lines 56-65); operatively connecting an integral output connector to the preamplifier circuitry, the output connector comprising an output jack (col. 6, lines 50-65); disposing the circuit board subassembly having the input device and the output connector connected thereto within the housing (Figs. 4-6), the output connector being in registration with an opening formed through the face portion of the housing (Figs. 4-6); and mechanically attaching the output connector to the face portion of the housing at the opening formed therethrough, thereby securing the circuit board assembly within the housing and allowing the user to access the output connector via the opening in the face portion (Figs. 4-6; col. 6, lines 30-65), and mechanically

attaching the output jack to the face portion of the housing at the first opening (i.e., the opening that holds the jack #56) formed therethrough by at least one fastener (Fig. 5), wherein the face portion of the housing is configured to provide a structural reinforcement for the output jack (Figs. 5 and 7), wherein the housing includes an electronics enclosure (#58) for housing the circuit board assembly and an integral battery holder for holding a battery to power the preamplifier circuitry (col. 6, lines 61-65), the battery being accessible by the user through a second opening (#39) formed in the face portion of the housing (Figs. 3 and 5).

Wechter does not mention expressly: mechanically attaching the output connector directly to the at least one circuit board of the circuit board subassembly; and attaching a captive cover for the second opening for securely enclosing the battery within the battery holder, the cover being movably mounted on the face portion of the housing.

Armstrong teaches an electrical guitar, including a batter holder (#84) contained in a shielded housing (col. 5, lines 30-37), and a cover (#94) for securely enclosing the battery within the battery holder, the cover being movably mounted on the face portion of the housing to allow the user to access the battery within the battery holder (col. 5, lines 46-52).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Wechter to have a cover for the battery holder as taught by Armstrong in order to allow the user to access the battery more easily.

Hudak teaches a preamplifier, including an integrated output connector, said output connector being directly attached to the at least one printed circuit board, and being mounted on the face portion of the housing (i.e., the soundboard) of the preamplifier to secure the printed circuit board assembly within the housing (Figs. 1-3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Wechter as taught by Hudak to rearrange the position of the output connector in order to make the preamplifier assembly construction easy and manufacture effective (Hudak, cols. 3-4, lines 60-2).

With respect to claims 34 and 36:

Wechter further teaches: operatively connecting the input device (#64) to the preamplifier circuitry (Fig. 5), the input device being selected from the group consisting of a pre-wired pickup, a pre-wired microphone, a vibration sensitive transducer, a force sensor, an accelerometer, and a pressure sensor (col. 7, lines 9-13).

Wechter does not mention expressly: wherein the circuit board subassembly comprises first and second printed circuit boards and a printed circuit board spacer, and further including the step of disposing the first and second circuit boards on the circuit board spacer to mechanically interconnect the circuit boards in a predetermined fixed orientation, thereby allowing the user to access the output connector via the first opening in the face portion when the circuit board subassembly is disposed in the housing (col. 4, lines 31-47; col. 5, lines 46-52).

Armstrong teaches: said the circuit board subassembly comprises first and second printed circuit boards and a printed circuit board spacer, and further including

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the step of disposing the first and second circuit boards on the circuit board spacer to mechanically interconnect the circuit boards in a predetermined fixed orientation, thereby allowing the user to access the output connector via the opening in the face portion when the circuit board subassembly is disposed in the housing (col. 4, lines 31-47; col. 5, lines 46-52; Fig. 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Armstrong into the invention of Wechter in order to provide a comprehensive preamplifier for a stringed instrument which can be easily accessed (Armstrong, Abstract).

With respect to claim 39:

The teaching of Wechter further includes: the battery holder has a plurality of battery terminals disposed therein, and further including the step of operatively connecting the battery terminals to the preamplifier circuitry (Fig. 6; col. 6, lines 41-43).

With respect to claim 40:

Wechter teaches a method of installing a preamplifier assembly in a musical instrument, the preamplifier assembly having a housing (#51; col. 6, lines 66-68) with a mounting flange (#46) for connecting the housing to a surface of the musical instrument (Figs. 1-6), comprising the steps of: forming a first opening (#39) in the musical instrument, the first opening having a size sufficient to receive the housing of the preamplifier assembly (Fig. 3 and 5); optionally forming a second opening (i.e., the opening that fits the pickup) in the musical instrument, the second opening having a size sufficient to receive a

pickup (#64) operatively connected to the preamplifier assembly (#51); installing the pickup (#64) on the musical instrument by optionally inserting the pickup through the second opening formed in the musical instrument (Fig. 5); disposing the housing within the first opening formed in the musical instrument to allow the mounting flange to overlap a portion of the surface of the musical instrument (Figs. 3 and 5), wherein the housing includes a face portion (#46) and an integral battery holder (#52) configured to hold a battery, and wherein the housing is disposed within the first opening in the musical instrument to allow user access to the battery within the battery holder (Figs. 3 and 5; col. 6, lines 61-65); and fastening the mounting flange to the surface of the musical instrument to secure the preamplifier assembly to the instrument (Figs. 3, 6 and 7), wherein the preamplifier assembly includes a printed circuit board subassembly and an integral output connector comprising an output jack (col. 6, lines 50-65), the output jack (#56) being attached to the face portion of the housing (Fig. 5); the face portion providing a structural reinforcement for the output jack (Fig. 5), and wherein the mounting flange is fastened (via fasteners #48) to the musical instrument surface to allow unobstructed user access to the face portion of the housing and the output connector connected thereto (Figs. 3, 4, 6 and 7; col. 5, lines 44-54).

Wechter does not mention expressly: the battery holder having a captive cover for securely enclosing the battery within the battery holder, the cover being movably mounted on the face portion of the housing; the printed circuit board subassembly being disposed within the housing and including at least one printed circuit board, the output connector being directly attached to the at least one printed circuit board and being

mounted to the face portion of the housing to secure the printed circuit board subassembly within the housing.

Armstrong teaches an electrical guitar, including a batter holder (#84) contained in a shielded housing (col. 5, lines 30-37), and a cover (#94) for securely enclosing the battery within the battery holder, the cover being movably mounted on the face portion of the housing to allow the user to access the battery within the battery holder (col. 5, lines 46-52).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Wechter to have a cover for the battery holder as taught by Armstrong in order to allow the user to access the battery more easily.

Hudak teaches a preamplifier, including an integrated output connector, said output connector being directly attached to the at least one printed circuit board, and being mounted on the face portion of the housing (i.e., the guitar bowel) of the preamplifier to secure the printed circuit board assembly within the housing (Figs. 1-3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Wechter's output jack 56, as taught by Hudak, to rearrange the parts to have a printed circuit board directly attached thereto in order to make the preamplifier assembly construction easier and manufacture effective (Hudak, cols. 3-4, lines 60-2).

With respect to claim 42:

Wechter teaches forming the first opening in a side of a lower bout of the instrument for receiving the housing of a preamplifier assembly (Figs. 5-7).

5. Claims 24-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wechter in view of Armstrong and Hudak, as applied to claim 23 above, and further in view of Soumi et al. (U.S. Pat. No. 4937606).

Wechter in view of Armstrong and Hudak teach the preamplifier assembly that includes the subject matter discussed above except: the battery holder cover that includes the limitations recited in claims 24-30.

Soumi et al. teaches a batter holder cover (22), including: the cover is slidably mounted on the face portion of the housing (col. 3, lines 7-13); the cover is pivotally and slidably mounted on the face portion of the housing (col. 3, lines 7-13); the cover includes at least one cover locking surface (col. 3, lines 44-48) and the face portion of the housing includes at least one cover retaining element (40), the cover retaining element being configured to engage the cover locking surface when the cover encloses the battery within the battery holder (Fig. 5; col. 3, lines 49-59); the cover has at least one pivot (24) formed thereon, and wherein the face portion of the housing includes a bezel (42), the bezel having at least one slot formed therein (Fig. 5), one end of the slot defining a pivot point, the slot being configured to receive the pivot to facilitate slidable and pivotable movement of the cover between a closed position and an opened position, the closed position enclosing the battery within the battery holder, the opened position allowing the user to access the battery within the battery holder (Abstract and col. 3, lines 14-18, lines 33-48); the cover has a first edge (Figs. 2 and 5), the at least

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one pivot (#24) being formed on the cover adjacent the first edge, and wherein the cover is configured to allow the user to move it from the closed position to the opened position by sliding the cover to disengage the cover locking surface from the cover retaining element and to move the pivot within the slot opening (#42) to the pivot point, the first edge of the cover adjacent the pivot being a leading edge during the sliding movement, and by pivoting the cover about the pivot point to the opened position, thereby allowing the user to open the cover in substantially one continuous movement (col. 3, lines 33-48); the battery holder has a plurality of battery terminals disposed therein, the cover having at least one rib formed on a surface thereof, the rib being configured to push the battery toward the battery terminals when the cover encloses the battery in the battery holder (col. 4, lines 61-68); and the terminals are configured to urge the battery against the at least one rib formed on the cover, thereby causing the cover locking surface on the cover to securely engage the cover retaining element on the face portion of the housing (col. 4, lines 61-68).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Soumi et al. into the combination of Wechter, Armstrong and Hudak in order to provide Wechter's batter holder with a battery cover that is light-weighted, structural simple and easy to operate, and that can be appropriately applied to handheld electronic instrument or device (Soumi et al., cols. 1-2, lines 63-21).

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6. Claims 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wechter in view of Armstrong and Hudak, as applied to claims 33 and 36 above, and further in view of Kupnicki et al. (U.S. Pat. No. 6283778).

Wechter in view of Armstrong and Hudak teach the method that includes the subject matter discussed above except: the circuit board spacer has a guide rail formed on a length thereof, wherein the housing has mounting rail formed on a surface thereof, and wherein the step of disposing the circuit board subassembly within the housing includes slidably engaging the guide rail to the mounting rail.

Kupnicki et al. teach a technique for mounting circuit board, including: a circuit board spacer has a guide rail formed on a length thereof, wherein a housing has mounting rail formed on a surface thereof, and wherein a step of disposing the circuit board subassembly within the housing includes slidably engaging the guide rail to the mounting rail (col. 1, lines 51-65).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Kupnicki into the combination of Wechter, Armstrong and Hudak in order to provide a constructional convenient mechanism for mounting printed circuit boards which allows a circuit board to be removed, inserted or replaced easily (Kupnicki et al., Abstract). The mere application of a known technique to a specific instance by those skilled in the art would have been obvious.

7. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wechter in view of Armstrong and Hudak, as applied to claim 40 above, and further in view of Loar (U.S. Pat. No. 2020842).

Wechter in view of Armstrong and Hudak teach the method that includes the subject matter discussed above except: the musical instrument comprises an acoustic stringed instrument including a body, a bridge, and a saddle slot, wherein the second forming step includes forming the second opening through the bridge, and wherein the installing step includes inserting the pickup from inside the instrument body through the opening in the bridge for subsequent insertion in the saddle slot.

Loar teaches a musical instrument that comprises an acoustic stringed instrument including a body, a bridge, and a saddle slot, wherein an opening through the bridge is formed, and wherein pickups are inserted from inside the instrument body through the opening in the bridge for subsequent insertion in the saddle slot (Figs. 1, 2, 5-9; page 2, right column, lines 14-51; page 3, left column, lines 1-45).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Loar into the combination of Wechter, Armstrong and Hudak in order to apply the method of Wechter in view of Armstrong and Hudak to a musical instrument having pickups installation as taught by Loar. The mere application of a known technique to a specific instance by those skilled in the art would have been obvious.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Response to Arguments

9. Applicant's arguments received 06/30/06 with respect to claims 1-5, 7-8, 10-14, 17-34, 36, 37 and 39-42 have been considered but they are not persuasive.

Claims 1-5, 7, 8, 10-14 and 17-22 are rejected as new grounds have been found from the Soumi reference to teach the details about the battery holder cover which can be operated slidably and pivotally from a closed position to an opened position in substantially one continuous movement to allow the use access the battery conveniently. Detailed response is given in, for example, section 2 as set forth above in this Office Action.

Regarding claims 23-32, Applicant argued that “mounting an output connector 50 having a printed circuit board 48 directly attached thereto to the soundboard (i.e., the shaped back 14 of the body of a guitar; see Fig. 3 of Hudak) is significantly different from mounting an output jack having a printed circuit board directly attached thereto to the face portion of a preamplifier housing to secure the printed circuit board within the housing, as recited in amended claim 23”. Based on this, Applicant argued that “the combination of the Wechter, Armstrong, and Hudak references cannot render amended claim 23 and the claims dependent therefrom obvious”. These arguments are not persuasive. The examiner considers that Wechter is not clear about mounting an output jack having a printed circuit board directly attached thereto to the face portion of a preamplifier housing to secure the printed circuit board within the housing, but, Hudak teaches mounting an output jack 50 having a printed circuit board 48 directly attached thereto to the face portion 40 of a preamplifier housing (i.e., the guitar bowl 14) to secure the printed circuit board within the housing 14. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Wechter’s output jack 56, as taught by Hudak, to have a printed circuit board directly attached thereto in order to make the preamplifier assembly construction easier and manufacture effective (Hudak, cols. 3-4, lines 60-2). The combination of Wechter with Hudak’s teaching reads on the claim. The combination is, therefore, proper.

Furthermore, Applicant’s attacking references individually in this regard is noted. In response to this, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re*

Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The rejections therefore stand.

Regarding claims 33, 34, 36, 37 and 39, Applicant's arguments are similar to the ones with respect to claims 23-32. For the same reasons discussed above, these arguments are not persuasive, and the rejections are also maintained.

Contact Information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jianchun Qin whose telephone number is (571) 272-5981. The examiner can normally be reached on 8am - 5:30pm.

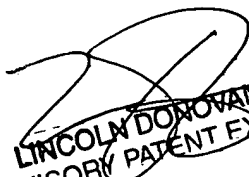
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jianchun Qin
Examiner
Art Unit 2837

JQ JQ


LINCOLN DONOVAN
SUPERVISORY PATENT EXAMINER